

REMARKS/ARGUMENTS

This is in response to the Office Action mailed April 18, 2008. Applicant amends claims 1, 12-15, and 34. Applicant cancels claim 16 without prejudice. Claims 1-15, and 17-38 are pending in the application and presented for further examination and allowance.

Discussion of Rejections Under 35 U.S. C. §103

Claims 1-38 were rejected as allegedly unpatentable over either of U.S. Patent No. 6,133,874 to Krasner (hereinafter Krasner) or U.S. Patent No. 6,433,735 to Bloebaum et al. (hereinafter Bloebaum) in view of U.S. Patent Application No. 2003/0040331 to Zhao (hereinafter Zhao).

Claim 1 recites a method of acquiring a signal. The method includes the feature of "obtaining acquisition assistance data at the receiver," "determining, subsequently to a time of obtaining the acquisition assistance data, a need for the receiver to acquire a particular signal" and "evaluating a validity of the previously obtained acquisition assistance data for use in acquiring the particular signal." Krasner, Bloebaum, and Zhao, whether alone or in combination, fail to teach or suggest at least this combination of claimed features.

As claimed, acquisition assistance data is received prior to determining a need to acquire a signal. Determining the validity of the acquisition assistance data occurs based on the need to acquire the particular signal. Neither Krasner nor Bloebaum teaches or suggests receiving assistance data prior to determining a need to acquire a particular signal.

The Examiner states: "As in any assisted GPS method, the mobile user requests assistance data and subsequently determines a need to determine a navigation solution." *See, Office Action*, at page 2. Applicant respectfully disagrees with the Examiner's assertion. In direct contrast to that argued by the Examiner, typically, a receiver does not request nor receive assistance data until *after* it has determined that a navigation solution is desired. Indeed, both Krasner and Bloebaum describe receiving the assistance data *after* determining the desire to determine a location of the receiver. Because the assistance data is provided in response to the position request, there is no need nor desire to evaluate the validity of the requested data.

Krasner describes determining a first pseudorange to a first satellite positioning system (SPS) satellite, and determining an approximate location of an SPS receiver. An estimated pseudorange for a second pseudorange to a second SPS satellite is determined from

the approximate location and a satellite position of the second SPS satellite. The SPS receiver then searches for SPS signals from the second SPS satellite in a range determined by the estimated pseudorange. The estimated pseudorange is not equivalent to the claimed acquisition assistance data, nor is the estimated pseudorange determined remote from the receiver. *See, Krasner*, at Col. 7, line 53 through col. 8, line 17.

In another embodiment, Krasner describes obtaining SPS assistance information in response to transmitting a request for such information. *See, id.*, at Figure 9 and Col. 15, line 42 through Col. 16, line 30. Krasner expressly describes “mobile SPS receiver transmits a request for SPS assistance information. Typically, *this will occur when the position of the receiver is desired.*” *Id.*, at Col. 15, ll. 42-45, (*emphasis added*). Thus, in the embodiment described in Krasner, the desire to determine the position triggers the request for SPS information.

Bloebaum is directed to determining the geographic location of a mobile terminal. A current cell identification number is determined for a cell in which the mobile terminal is located. The geographic location of the mobile terminal is determined based on the geographic position associated with the determined current cell identification number. *See, Bloebaum*, at Col. 1, ll. 26-34. Bloebaum expressly describes “the process is initiated by a request for position from an application 501” and in response “If there is no position entry in the database corresponding to the current cell-ID, the PoP may request assistance 505 from a location server.” *Id.*, at Figure 5 and Col. 5, ll. 55-56 and Col. 6, ll. 8-10. Bloebaum describes a second embodiment having the same order of signal flow. Bloebaum describes “the position request from the application is provided to the CoP” and in response “If there is no entry in the database corresponding to the current cell-ID, then the PoP may request assistance 604 from a location server.” *Id.*, at Col. 6, ll. 21-22 and ll. 45-47. Most notably, in both embodiments, the assistance from the location server is provided as a result and in response to the position request.

Both Krasner and Bloebaum describe assistance data sent in response to a request to determine a position. Thus, neither Krasner nor Bloebaum describes the claimed feature of “determining, *subsequently to a time of obtaining the acquisition assistance data*, a need for the receiver to acquire a particular signal.” (*emphasis added*).

Further, the Examiner concedes that neither Krasner nor Bloebaum teaches or suggests the claimed feature of “evaluating a validity of the previously obtained acquisition

assistance data for use in acquiring the particular signal.” The Examiner argues that Zhao describes a time over which Ephemeris is valid. *See, Office Action*, at page 2, (citing Zhao, paragraph [0023]).

However, mere knowledge of a finite life of Ephemeris data is not sufficient to modify the teachings of either Krasner or Bloebaum to use a different order of processing. Indeed, the type of assistance data described in Krasner and Bloebaum have typically more transient life spans than the Ephemeris data described in Zhao. Thus, one may not be motivated to modify the teaching of Krasner or Bloebaum because the type of assistance data is described in each is transient in nature. The transient nature of the assistance information may make it undesirable to store the assistance information prior to determining a need to determine position. Furthermore, the type of information described in Krasner and Bloebaum may not be conducive to evaluating the validity without newly requesting assistance data.

The proposed modification of Krasner and Bloebaum to modify the order of processing and add the feature of evaluating validity is improper, as both modifications require a change in the principle of operation of the processes described in the references. Both Krasner and Bloebaum refrain from sending assistance data until such data is requested. There is nothing that suggests that the embodiments described in Krasner or Bloebaum will be suitable for their intended purpose if the order of processes is modified. Indeed, the modification of the order of processing may further complicate the embodiments of Krasner and Bloebaum. The Examiner does not provide any reasoned rationale for describing the motivation or even reasonable expectation of success in making the modifications to Krasner and Bloebaum.

Claim 1 is believed to be allowable because neither Krasner nor Bloebaum teaches the combination of claimed features. Moreover, Zhao fails to provide sufficient teaching to implement the proposed modification to Krasner or Bloebaum, and the proposed modification is improper, as it changes the principle of operation of the cited references, and there is no reasonable expectation of success in the modification. Applicant respectfully requests reconsideration and allowance of claim 1.

The Examiner fails to provide any explanation of how claims 2-15, and 17-38 are rendered obvious by the combination of Krasner, Bloebaum, and Zhao. Applicant respectfully requests that the Examiner provide with particularity the support for the rejections or a withdrawal of the rejections to claims 2-15 and 17-38.

Discussion of Rejections Under 35 U.S.C. §102

Claims 15, 17, 18, 22-24, 26, 31, and 33 were rejected under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent No. 5,666,122 to Carter (hereinafter Carter).

Claim 15 includes the feature of “obtaining acquisition assistance data from an entity remote from the receiver.” Carter fails to describe this claimed feature, and thus fails to anticipate claim 15.

Carter is silent regarding acquisition assistance data, as described and claimed in the present application. Carter is directed to a radio rapidly acquiring a pilot signal from a satellite after being out of contact with the satellite for a length of time. The radio first acquires a satellite pilot signal and determines its position in relation to the earth. The radio then keeps track of the length of time that it has been out of contact with the satellite to estimate the extent of possible position changes and, therefore, which satellites might be in view and their relative positions to the radio. Carter fails to describe acquisition assistance data.

Furthermore, claim 15 includes the feature of “employing measured parameters of the first of the plurality of signals to perform at least one of evaluate a validity of the obtained acquisition assistance data or calculate, based on the obtained acquisition assistance data, updated acquisition assistance data for a second of the plurality of signals.” Carter fails to describe any manner of evaluating a validity of acquisition assistance data.

Thus, claim 15 is believed to be allowable at least for the reason that Carter fails to describe at least one claimed feature in the manner set forth in the claim. Applicant respectfully requests allowance of claim 15.

Each of claims 17, 18, and 22-23 depend from claim 15 and are believed to be allowable at least for the reason that they depend from an allowable base claim. Applicant respectfully requests allowance of claims 17, 18, and 22-23.

Claim 24 recites “[a] method of acquiring a signal at a mobile station telecommunications system receiver with the aid of acquisition assistance data.” The method includes “compensating the first acquisition assistance data at the mobile station for a new location of the mobile station to aid a search for a signal by the mobile station at a different second location.” Carter fails to describe “obtaining first acquisition assistance data” and fails to describe “compensating the first acquisition assistance data at the mobile station for a new location of the mobile station.”

As described above, Carter fails to describe obtaining acquisition assistance data. Carter further fails to describe “compensating the first acquisition assistance data” and fails to describe how the act of compensating the first acquisition assistance data is “for a new location of the mobile station.” Indeed, the Examiner does not cite to any portion of Carter as describing the claimed feature. Applicant respectfully requests withdrawal of the rejection to claim 24, as Carter fails to describe every claimed feature and the Examiner has not provided any basis for rejecting the claim over Carter.

Claims 26, 31, and 33 depend from claims 24 and are believed to be allowable at least for the reason that they depend from an allowable base claim. Applicant respectfully requests withdrawal of the rejection to claims 26, 31, and 33.

Discussion of Rejections Under 35 U.S.C. §112

Claims 1-14 and 34-38 were rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Applicant amends claim 1 to feature that “a receiver clock bias determined from the previously obtained acquisition assistance data.” Applicant respectfully requests withdrawal of the rejection of claims 1-14 under 35 U.S.C. §112, second paragraph in light of the amendment.

Claim 34 is amended to recite “A method of determining changes to a location of a mobile station in a cellular telecommunications system for evaluating previously obtained position location acquisition assistance data.” The claim is also amended to include the feature of “evaluating a validity of previously obtained acquisition assistance data for use in acquiring a particular signal based in part on the comparison.” Applicant respectfully requests withdrawal of the rejection of claims 34-38 under 35 U.S.C. §112, second paragraph in light of the amendment.

CONCLUSION

Applicant believes that all claims pending in the application are allowable. Applicant therefore respectfully requests that a timely Notice of Allowance be issued in this case.

Applicant petitions the Director of the United States Patent Office to extend the time for reply to the Office Action dated April 18, 2008 for one month and authorizes the charge as set forth in §1.17(a) to Deposit Account No. 17-0026.

Docket No. 030263

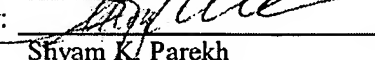
Serial No. 10/554,629

If there are any other fees due in connection with the filing of the response, please charge the fees to our Deposit Account No. 17-0026. If a fee is required for an extension of time under 37 CFR 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned.

Respectfully submitted,

Dated: August 18, 2008

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